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(54) Title: METHODS AND COMPOSITIONS FOR THE PROMOTION OF HAIR GROWTH UTILIZING ACTIN BINDING PEPTIDES

(57) Abstract: Disclosed herein are methods and compositions suitable for the promotion of hair growth on humans and other animals. Disclosed embodiments include compositions comprising actin-binding peptides. In some embodiments, the actin-binding peptides comprise fragments of thymosin  $\beta_4$ . In other embodiments, the disclosure provides compositions comprising fragments of thymosin  $\beta_4$  and/or other actin-binding peptides that are suitable for the treatment of alopecia and other conditions associated with hair loss. In still further embodiments, the disclosure provides compositions comprising the sequence of approximately six or seven amino acids of the thymosin  $\beta_4$  sequence that bind actin.

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## ABSTRACT

Disclosed herein are methods and compositions suitable for the promotion of hair growth on humans and other animals. Disclosed embodiments include

5 compositions comprising actin-binding peptides. In some embodiments, the actin-binding peptides comprise fragments of thymosin  $\beta$ 4. In other embodiments, the disclosure provides compositions comprising fragments of thymosin  $\beta$ 4 and/or other actin-binding peptides that are suitable for the treatment of alopecia and other conditions associated with hair loss. In still further embodiments, the disclosure

10 provides compositions comprising the sequence of approximately six or seven amino acids of the thymosin  $\beta$ 4 sequence that bind actin.